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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,004	07/23/2001	Moo-Youn Park	5000-1-214	3695

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT PAPER NUMBER

2874

DATE MAILED: 08/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/911,004

Applicant(s)

PARK, MOO-YOUNG 

Examiner

Daniel J Petkovsek

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This office action is in response to the supplemental response and translation filed in May 9, 2003.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 4, and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhatia et al. U.S.P. No. 6,269,208.

Bhatia et al. U.S.P. No. 6,269,208 teaches (Figs. 1 and 4, column 3 lines 9-33, column 6 line 53 through column 7 line 5) an apparatus (and method of using same) for fabricating an optical fiber grating comprising: a collective light source (16 and 20 combined) to project light perpendicularly to a fiber, a mask 40, a lens 24 disposed between the source and the fiber for focusing the light, and a mobile lens 36 (in the z direction) for diverging light and thus changing the period of the optical fiber grating (see column 53-57, column 3 lines 9-33), which clearly, fully meets Applicant's claimed limitations.

Regarding claim 3, the light image of Bhatia et al. '208 changes as the lens 36 moves. Regarding claims 4, 9 and 10, the mask is spaced a pre-determined distance apart from the fiber, and has an array of elongated openings.

#### *Claim Rejections - 35 USC § 103*

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5-7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatia et al. U.S.P. No. 6,269,208.

Bhatia et al. U.S.P. No. 6,269,208 teaches (Figs. 1 and 4, column 3 lines 9-33, column 6 line 53 through column 7 line 5) an apparatus (and method of using same) for fabricating an optical fiber grating comprising: a collective light source (16 and 20 combined) to project light perpendicularly to a fiber, a mask 40, a lens 24 disposed between the source and the fiber for focusing the light, and a mobile lens 36 (in the z direction) for diverging light and thus changing the period of the optical fiber grating. Bhatia et al. '208 does not explicitly teach the use of concave lenses or an integrated multi-period mask.

Although not explicitly taught, since the use of concave lenses to diverge light signals is well known in the art, and Bhatia et al. '208 diverges and converges light signals, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a concave lens to diverge the light signal in the photo induced grating of Bhatia et al. '208. Although not explicitly taught, since multi-period masks are well known in the art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an integrated multi-period mask in order to have the functionality to create a wide variety of different periods in the gratings.

### ***Conclusion***

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The supplemental response by Applicant has been considered. Accordingly, the rejection to claims 1-11 to Kim et al. '466 has been withdrawn. New rejections to claims 1-11 have been made under 35 U.S.C. 102 (e) and 35 U.S.C. 103 (a) to Bhatia et al. U.S.P. No. 6,269,208.

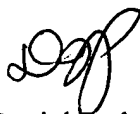
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art optical fiber grating fabrication: PTO-892 form references B-D.

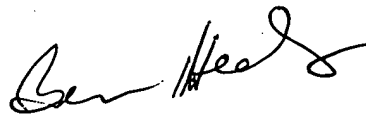
6. This action is made **NON-FINAL**, since new rejections to claims 1-11 have been made to Bhatia et al. '208.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (703) 305-6919. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9321.

  
Daniel Petkovsek  
July 30, 2003

  
Brian Healy  
Primary Examiner